

gate signal lines for supplying gate signals for driving the switching elements;
source signal lines for supplying display signals to the switching elements;
an interlayer insulating film provided on one of the pair of substrates over the gate
signal lines and the source signal lines; and
pixel electrodes provided over the gate signal lines and the source signal lines via
the interlayer insulating film, wherein:
the interlayer insulating film on one of the pair of substrates extends to a
surrounding region of a display pixel area; and
a continuous electrode pattern for adsorbing an ionic impurity is provided on the
interlayer insulating film in the surrounding region so as to surround the display pixel
area on all sides, wherein the continuous electrode pattern for adsorbing an ionic impurity
is provided on only one of the substrates and is at least partially coplanar with the pixel
electrodes.

8. (Amended) A liquid crystal display device, comprising:

a pair of substrates opposing each other;
a liquid crystal layer interposed between the pair of substrates;
a plurality of switching elements arranged in a matrix pattern on one of the pair of
substrates;
gate signal lines for supplying gate signals for driving the switching elements;
source signal lines for supplying display signals to the switching elements;

an interlayer insulating film provided on one of the pair of substrates over the gate signal lines and the source signal lines;

pixel electrodes provided over the gate signal lines and the source signal lines via the interlayer insulating film, wherein:

the interlayer insulating film on one of the pair of substrates extends to a surrounding region of a display pixel area;

an electrode pattern for adsorbing an ionic impurity is provided on the interlayer insulating film in the surrounding region; and

the electrode pattern is divided into a plurality of segments; and an electric signal is individually input to each of the segments, and wherein all segments of the electrode pattern for adsorbing an ionic impurity are provided on the same substrate and are at least partially coplanar with the pixel electrodes so that the segments are at a different elevation(s) than the gate signal lines.

9. (*Unamended*) A liquid crystal display device, comprising:

a pair of substrates opposing each other;

a liquid crystal layer interposed between the pair of substrates;

a plurality of switching elements arranged in a matrix pattern on one of the pair of substrates;

gate signal lines for supplying gate signals for driving the switching elements;

source signal lines for supplying display signals to the switching elements;

an interlayer insulating film provided on one of the pair of substrates over the gate signal lines and the source signal lines;

pixel electrodes provided over the gate signal lines and the source signal lines via the interlayer insulating film, wherein:

the interlayer insulating film on one of the pair of substrates extends to a surrounding region of a display pixel area;

an electrode pattern for adsorbing an ionic impurity is provided on the interlayer insulating film in the surrounding region;

*Br
Wnt*
the display pixel area has a generally rectangular shape;

the pair of substrates are arranged so that a rubbing direction of one of the substrates which is represented by a first arrow crosses a rubbing direction of the other one of the substrates which is represented by a second arrow, the first and second arrows each extending from its tail to its head; and

the electrode pattern extends only along three sides of the display pixel area, including a first side interposed between the head of the first arrow and the head of the second arrow, and second and third sides which respectively extend from opposite ends of the first side.

10. (Amended) A liquid crystal display device, comprising:

a pair of substrates opposing each other;

a liquid crystal layer interposed between the pair of substrates;

a plurality of switching elements arranged in a matrix pattern on one of the pair of substrates;

gate signal lines for supplying gate signals for driving the switching elements;

source signal lines for supplying display signals to the switching elements;

an interlayer insulating film provided on one of the pair of substrates over the gate signal lines and the source signal lines;

pixel electrodes provided over the gate signal lines and the source signal lines via the interlayer insulating film, wherein:

the interlayer insulating film on one of the pair of substrates extends to a surrounding region of a display pixel area;

an electrode pattern for adsorbing an ionic impurity is provided on the interlayer insulating film in the surrounding region on only one of the substrates, said pattern being coplanar with the pixel electrodes;

the pair of substrates are arranged so that a rubbing direction of one of the substrates which is represented by a first arrow crosses a rubbing direction of the other one of the substrates which is represented by a second arrow, the first and second arrows each extending from its tail to its head; and

the electrode pattern extends only along one side of the display pixel area interposed between the head of the first arrow and the head of the second arrow.

12. (Amended) A liquid crystal display device, comprising:

a pair of substrates opposing each other;

a liquid crystal layer interposed between the pair of substrates;

a plurality of switching elements arranged in a matrix pattern on one of the pair of substrates;

gate signal lines for supplying gate signals for driving the switching elements;

source signal lines for supplying display signals to the switching elements;

an interlayer insulating film provided on one of the pair of substrates over the gate signal lines and the source signal lines;

pixel electrodes provided over the gate signal lines and the source signal lines via the interlayer insulating film, wherein:

the interlayer insulating film on one of the pair of substrates extends to a surrounding region of a display pixel area;

an electrode pattern for adsorbing an ionic impurity is provided on the interlayer insulating film in the surrounding region;

the liquid crystal display device includes a generally rectangular display pixel area;

a rubbing direction of at least one of the substrates is represented by an arrow pointing to a corner of the generally rectangular display pixel area; and

the electrode pattern extends along only two sides of the generally rectangular display pixel area which are connected together by the corner that is pointed to by the arrow.

13. (Amended) A liquid crystal display device, comprising:

a pair of substrates opposing each other;

a liquid crystal layer interposed between the pair of substrates;

a plurality of switching elements arranged in a matrix pattern on one of the pair of substrates;

gate signal lines for supplying gate signals for driving the switching elements;

source signal lines for supplying display signals to the switching elements;

an interlayer insulating film provided on one of the pair of substrates over the gate signal lines and the source signal lines;

pixel electrodes provided over the gate signal lines and the source signal lines via the interlayer insulating film, wherein:

the interlayer insulating film on one of the pair of substrates extends to a surrounding region of a display pixel area;

an electrode pattern for adsorbing an ionic impurity is provided on the interlayer insulating film in the surrounding region;

the liquid crystal display device includes a generally rectangular display pixel area;

a rubbing direction of one of the substrates is represented by a first arrow pointing to a first corner of the generally rectangular display pixel area, and a rubbing direction of the other one of the substrates is represented by a second arrow pointing to a second corner of the generally rectangular display pixel area; and

the electrode pattern extends along only a first pair of sides which are connected together by the first corner and along a second pair of sides which are connected together

by the second corner, wherein the first pair of sides and the second pair of sides may share one side with each other.

15. (Amended) A liquid crystal display device, comprising:

- a pair of substrates;
- a liquid crystal layer between the pair of substrates;
- a plurality of switching elements arranged on one of the pair of substrates;
- pixel electrodes provided in a display pixel area of the display device;
- an insulating film on one of the pair of substrates and at least partially covering address lines, the insulating film extending to a surrounding region of the display pixel area; and
- an electrode pattern for adsorbing an ionic impurity provided over the interlayer insulating film in the surrounding region so as to surround the display pixel area on all sides thereof and so as to be at least partially coplanar with the pixel electrodes.

REMARKS

This is in response to the Office Action dated May 10, 2002. Claims 1-15 are pending. Attached hereto is a marked-up version of the changes made to the claim(s) by the current amendment. The attached page(s) is captioned "**Version With Markings To Show Changes Made.**"

Applicant notes with appreciation the Examiner's allowance of claim 9.